

before the missing data period to substitute for hours 1 through 72 of the missing data period.

(3) Whenever no quality-assured CO₂ or O₂ concentration data are available for a period where the percent monitor data availability for the CO₂ continuous emission monitoring system (or O₂ diluent monitor) as of the last unit operating hour of the previous calendar quarter was less than 90.0 percent, the owner or operator shall substitute heat input calculated using the procedures in section 5.5 of appendix F of this part for each hour of the missing data period until quality-assured CO₂ or O₂ concentration data are again available.

(d) Upon completion of 720 quality-assured monitor operating hours using the initial missing data procedures of § 75.31(b), the owner or operator shall provide substitute data for CO₂ or O₂ concentration to calculate heat input, as follows. Substitute CO₂ data for heat input determinations shall be provided according to § 75.35(d). Substitute O₂ data for the heat input determinations shall be provided in accordance with the procedures in § 75.33(b), except that the term “O₂ concentration” shall apply rather than the term “SO₂ concentration” and the term “O₂ diluent monitor” shall apply rather than the term “SO₂ pollutant concentration monitor.” In addition, the term “substitute the lesser of” shall apply rather than “substitute the greater of;” the terms “minimum hourly O₂ concentration” and “minimum potential O₂ concentration, as determined under section 2.1.3.2 of appendix A to this part” shall apply rather than, respectively, the terms “maximum hourly SO₂ concentration” and “maximum potential SO₂ concentration, as determined under section 2.1.1.1 of appendix A to this part;” and the terms “10th percentile” and “5th percentile” shall apply rather than, respectively, the terms “90th percentile” and “95th percentile” (see Table 1 of § 75.33).

[60 FR 26530, May 17, 1995, as amended at 64 FR 28604, May 26, 1999]

§ 75.37 Missing data procedures for moisture.

(a) On and after April 1, 2000, the owner or operator of a unit with a continuous moisture monitoring system

shall substitute for missing moisture data using the procedures of this section. Prior to April 1, 2000, the owner or operator may substitute for missing moisture data using the procedures of this section.

(b) Where no prior quality assured moisture data exist, substitute the minimum potential moisture percentage, from section 2.1.5 of appendix A to this part, except when Equation 19–3, 19–4 or 19–8 in Method 19 in appendix A to part 60 of this chapter is used to determine NO_x emission rate. If Equation 19–3, 19–4 or 19–8 in Method 19 in appendix A to part 60 of this chapter is used to determine NO_x emission rate, substitute the maximum potential moisture percentage, as specified in section 2.1.6 of appendix A to this part.

(c) During the first 720 quality assured monitor operating hours following initial certification (i.e., the date and time at which quality assured data begins to be recorded by the moisture monitoring system), the owner or operator shall provide substitute data for moisture according to § 75.31(b).

(d) Upon completion of the first 720 quality-assured monitor operating hours following initial certification of the moisture monitoring system, the owner or operator shall provide substitute data for moisture as follows:

(1) Unless Equation 19–3, 19–4 or 19–8 in Method 19 in appendix A to part 60 of this chapter is used to determine NO_x emission rate, follow the missing data procedures in § 75.33(b), except that the term “moisture percentage” shall apply rather than “SO₂ concentration;” the term “moisture monitoring system” shall apply rather than the term “SO₂ pollutant concentration monitor;” the term “substitute the lesser of” shall apply rather than “substitute the greater of;” the terms “minimum hourly moisture percentage” and “minimum potential moisture percentage, as determined under section 2.1.5 of appendix A to this part” shall apply rather than, respectively, the terms “maximum hourly SO₂ concentration” and “maximum potential SO₂ concentration, as determined under section 2.1.1.1 of appendix A to this part;” and the terms “10th percentile” and “5th percentile” shall apply rather than, respectively, the

terms “90th percentile” and “95th percentile” (see Table 1 of § 75.33).

(2) When Equation 19-3, 19-4 or 19-8 in Method 19 in appendix A to part 60 of this chapter is used to determine NO_x emission rate:

(i) Provided that none of the following equations is used to determine SO₂ emissions, CO₂ emissions or heat input: Equation F-2, F-14b, F-16, F-17, or F-18 in appendix F to this part, or Equation 19-5 or 19-9 in Method 19 in appendix A to part 60 of this chapter, use the missing data procedures in § 75.33(b), except that the term “moisture percentage” shall apply rather than “SO₂ concentration” and the term “moisture monitoring system” shall apply rather than “SO₂ pollutant concentration monitor;” or

(ii) If any of the following equations is used to determine SO₂ emissions, CO₂ emissions or heat input: Equation F-2, F-14b, F-16, F-17, or F-18 in appendix F to this part, or Equation 19-5 or 19-9 in Method 19 in appendix A to part 60 of this chapter, the owner or operator shall petition the Administrator under § 75.66(l) for permission to use an alternative moisture missing data procedure.

[64 FR 28604, May 26, 1999]

Subpart E—Alternative Monitoring Systems

§ 75.40 General demonstration requirements.

(a) The owner or operator of an affected unit, or the owner or operator of an affected unit and representing a class of affected units which meet the criteria specified in § 75.47, required to install a continuous emission monitoring system may apply to the Administrator for approval of an alternative monitoring system (or system component) to determine average hourly emission data for SO₂, NO_x, and/or volumetric flow by demonstrating that the alternative monitoring system has the same or better precision, reliability, accessibility, and timeliness as that provided by the continuous emission monitoring system.

(b) The requirements of this subpart shall be met by the alternative monitoring system when compared to a con-

temporaneously operating, fully certified continuous emission monitoring system or a contemporaneously operating reference method, where the appropriate reference methods are listed in § 75.22.

§ 75.41 Precision criteria.

(a) *Data collection and analysis.* To demonstrate precision equal to or better than the continuous emission monitoring system, the owner or operator shall conduct an F-test, a correlation analysis, and a t-test for bias as described in this section. The t-test shall be performed only on sample data at the normal operating level and primary fuel supply, whereas the F-test and the correlation analysis must be performed on each of the data sets required under paragraphs (a)(4) and (a)(5) of this section. The owner or operator shall collect and analyze data according to the following requirements:

(1) Data from the alternative monitoring system and the continuous emission monitoring system shall be collected and paired in a manner that ensures each pair of values applies to hourly average emissions during the same hour.

(2) An alternative monitoring system that directly measures emissions shall have probes or other measuring devices in locations that are in proximity to the continuous emission monitoring system and shall provide data on the same parameters as those measured by the continuous emission monitoring system. Data from the alternative monitoring system shall meet the statistical tests for precision in paragraph (c) of this section and the t-test for bias in appendix A of this part.

(3) An alternative monitoring system that indirectly quantifies emission values by measuring inputs, operating characteristics, or outputs and then applying a regression or another quantitative technique to estimate emissions, shall meet the statistical tests for precision in paragraph (c) of this section and the t-test for bias in appendix A of this part.

(4) For flow monitor alternatives, the alternative monitoring system must provide sample data for each of three different exhaust gas velocities while the unit or units, if more than one unit